

## ISYS1055/1057 Tutorial/Lab Sheet

### SQL Programming (2)

A read-only version of the Rocky Concrete database has been built up for you to complete exercises. Description of the Rocky Concrete database schema and content can be downloaded from Blackboard → Content → Tutorials/Labs. The document “On Using Oracle SQL\*Plus.pdf” at the same location is a useful reference describing SQL\*Plus commands and how to create .sql file of SQL queries.

Complete the following questions on the read-only Rocky Concrete database, which can be accessed by the **sqlrocky** command on Yallara. You should compile and run all SQL queries in “sqlrocky” and put them in a .sql file.

1. A customer complained that his/her order of Garden Gnomes was not delivered. Write an SQL query to find the details of all orders for Garden Gnomes, including the order\_no, order\_date, cust\_no, and prod\_cod, quantity and price of products of the orders.
2. Find the orders whose total value is at least \$1000. Output the order\_no and order\_date of these orders with their cust\_no and cust\_name. (a) Write a Join SQL query. (b) Write SQL queries using operators IN and EXISTS respectively.
3. List the product groups with their total potential value, in decreasing order of the total potential value. Write an SQL query.
4. Find the product group with the highest total potential value. Output the product group with its total potential value.
  - a. The SQL query given below does not work. Run the query in "sqlrocky" and explain why. Hint: refer to slide #33 on "Nested Aggregation" of the lesson "SQL Programming (1)".

```
select prod_group, max(sum(qty_on_hand*list_price))  
from Products  
group by prod_group;
```
  - b. Write an SQL query that can answer the question.
5. Give the English statement for the following SQL query. You should try the following query in "sqlrocky" to help you understand the query.

```
select A.cust_no, A.cr_limit  
from customers A  
where A.cust_no= any (select cust_no  
from Orders);
```